

Abstract ID : 66

Title : The tuna/dolphin problem: Are depleted dolphin populations recovering?

Category : Conservation

Student : Not Applicable

Preferred Format : Oral Presentation

Abstract : The tuna-dolphin issue has been a prominent marine conservation issue for nearly 40 years. During the last 15 years, the bycatch of dolphins in the tuna fishery has declined greatly, leading to expectations of recovery. The results of a 5-year multidisciplinary study indicate that the most affected populations, northeastern offshore spotted dolphins and eastern spinner dolphins, are remaining at 20% and 35% of their pre-fishery levels, and that neither population is recovering as expected. Hypotheses to explain the lack of recovery are that the reported kill is not accurate, that there are effects of the fishery beyond the reported kill, that carrying capacity has changed, and that a lag occurs before recovery begins. Given available data, none of these hypotheses conclusively explains the lack of recovery, nor can any one hypothesis be clearly rejected. Further, the hypotheses are not mutually exclusive, and all may be operating to various degrees. The most likely explanation appears to be that chasing and encircling dolphins has unobserved effects on survival and reproduction. Because the fishery is intense, small unobserved effects would be sufficient to explain the lack of recovery, while the effect sizes of other hypotheses may not be sufficient.